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| 10/726,812 | 12/02/2003 | Qiming Zhu | 019680-007800US | 4116 |

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| EXAMINER |
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THOMAS, SHANE M

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| ART UNIT | PAPER NUMBER |
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10/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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| Advisory Action Before the Filing of an Appeal Brief | Application No. 10/726,812 | Applicant(s) ZHU, QIMING | |
| | Examiner Shane M. Thomas | Art Unit 2186 | |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 September 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-30 and 32-36.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

Continuation of 7. The amendment to claim was merely to resolve an objection to claim and does not change the claim's scope.


Continuation of 11. does NOT place the application in condition for allowance because Applicant's arguments, which have been carefully considered, are not persuasive. A brief discussion follows.

Applicant states on page 8 of the After-Final response filed 9/28/07 that "At page 3, the Office Action also asserts that the filter driver objects of Figure. 5 (team filter or disk filter) are the functional device objects of claim 1." This statement is not correct. Page 3 of the Final Office Action filed 8/2/2007 states that while Chatterjee teaches a plurality of filter device objects (FiDO), Chatterjee does not specifically teach functional device objects (FDO) as well as the FDOs each being associated with one of the disks and adapted to interface with a second physical device object. The prior art reference of Moore has been cited to teach this limitation of claim 1. The Examiner is relying on the Moore reference to teach how the RAID controller 1 interacts with the physical disks that represent the RAID array that Controller 1 controls. Essentially, Chatterjee does not show the interaction between the physical disks that represent the logical disks LD0-LD3 (36 and 42 of Chatterjee), but it would have been obvious to have seen by one of ordinary skill that the RAID controller 1 would have necessarily had to access the physical disks when writing to or reading from the logical disks LD0-LD3. Therefore to teach this interaction, the Examiner has cited Moore (figure 5), which teaches the interaction between physical devices (which themselves each have a corresponding FDO 510a-510b and a PDO 515a-515b) and a controller (which itself has a corresponding PDO 535 and FDO 530) for interacting with those devices. It is this interaction that teaches a single controller 1 being connected to multiple physical disks that form a RAID array. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to Applicant's argument on the last paragraph of page 9 of the response, the Examiner does not see how the second physical devices are between the first physical device (Controller) and the operating system as Chatterjee clearly shows the controller 1 220 connected between the SCSI Bus 230, which connects the physical disk drives comprising the logical disks LD0-LD3, and the PCI bus 203, which bridges the controller 1 220 and the CPU 202 running the operating system. Thus, Chatterjee teaches that the first physical device is between the second physical devices and the operating system.

Finally, Applicant seems to argue on page 11 of the response, that because Controller 0 has failed that Chatterjee does not teach the claimed invention. The Examiner respectfully disagrees. It would have been obvious for one having ordinary skill in the art to see that this is a redundant controller system where if either one of controller 0 or 1 failed, the other would resume access duties to the failed controllers disks (46). The Examiner could have chosen to use controller 1 as the claimed "a first disk controller" of the claim and Chatterjee would have read on the claimed invention. Thus it could have been seen, when controller 1 fails, controller 0 would resume at least a portion of the plurality of disks. It also appears that the Applicant is emphasizing a "portion of the plurality of disks." However, the entire limitation reads "at least a portion of the plurality of disks." Such a limitation has a scope range of "a portion of the plurality of disks" to "the entire plurality of disks" as the "entire plurality of disks" is, by definition, "at least" a portion of itself.

For these reasons, Applicant's arguments do not place the claims in condition for allowance and the claim rejections discussed in the Final Office Action filed 8/2/2007 have been maintained.



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